Consortium

CGIAR

The CGIAR Strategy and Results Framework Management Update, 2013-2014

CGIAR Consortium Office[1], December 20, 2013

[1] This is the first draft prepared by Consortium Office with inputs from several Working Groups for external and internal consultation (CRPs, Centers, CB, ISPC, Fo, FC, GFAR as well as publicly through the website)

TABLE OF CONTENTS

1. INTRODUCTION

The CGIAR Strategic Results Framework (SRF) defines four system-level outcomes: reducing rural poverty, increasing food security, improving nutrition and health and the sustainable management of natural resources (SRF February 20, 2011). One significant limitation to implementing the SRF is that outcomes were expressed in qualitative terms making clear target setting, practical monitoring, adaptive management and transparent reporting difficult. Consequently, the Funders Forum made a request for three priority issues to be addressed by the Consortium:

1. Identification of metrics to measure success in the implementation of the SRF and that connect the performance of the CGIAR Research Programs (CRPs) to the System Level Outcomes (SLOs);
2. A process for setting priorities among the different CRPs;
3. Inclusion of a forward looking, dynamic and foresight dimension in the SRF.

In response the Consortium developed an Action Plan[2] to address these issues and a timetable for its implementation that were reviewed and approved at the second Funders' Forum (November 2012). The implementation of the 2011 SRF is currently guided by the SRF Action Plan and the ISPC's White Paper Strengthening the SRF through Prioritization[3].

Building on Action Plan results completed in 2013, this SRF Management Update lays out the conceptual refinements and management changes required for improving the CGIAR accountability framework, enhance the SRF implementation process and increase the overall likelihood of making tractable contributions to sustainable development outcomes at meaningful scales.

The accountability framework proposed here will be implemented by means of a results based management system designed to enable superior alignment of resource allocation and CRPs' strategic objectives (i.e., relative funding and staff time allocated to different Clusters of Activities (CA), Flag Ships (FS) and Intermediate Development Outcomes (IDOs). IDOs are the building blocks for the proposed CGIAR accountability framework. IDOs are framed within well articulated theories of change and described in terms of impact pathways along with quantitative statements of expected contributions to particular geographic domains –i.e., generally countries, sometimes "sites" or landscapes. Targets are defined at country levels and together with country partners and associated to national level Sustainable Development Goal (SDG) goals and indicators. CGIAR will employ SDG metrics or proxies suitable for aggregation and subsequent monitoring, reporting and evaluation at national levels of IDOs' contributions to the system level to measure contributions to the 4 CGIAR SLOs (as represented by the subset of SDGs relevant to the SLOs).

[2] CGIAR SRF Action Plan – October 2012 - Click Here
[3] Strengthening the SRF through Prioritization – Click Here

In addition, responding to requests made by the Independent Science and Partnership Council (ISPC) and the Fund Council (FC), gender, foresight, partnership and capacity building dimensions are incorporated in CRPs' research planning as key cross cutting themes. Cross cutting themes will be included in CRPs' targets and monitoring and reporting metrics.

Metrics, systems and process will be developed to define and track leading and coincident indicators for monitoring and reporting of both: continuous progress towards targets (e.g., completing Flagship Outcomes) and achievement of development impact (i.e., ultimate contribution to SLO/SDG goals at country levels). Lagging indicators will be used for appraisal and monitoring of CRPs' management effectiveness / efficiency that will inform program-level decision making and adaptive management (i.e., evidence based resource allocation).

2. PROCESS FOR UPDATING THE SRF

Key Messages
• The Consortium Board (CB) is responsible for preparing and approving the SRF Management Update, and will also be submitted to the FC for approval. • The Consortium Office (CO) works with CRPs, centers and ISPC preparing draft SRF versions for review and feedback from CB, FC, ISPC interested donors, partners and stakeholders (GFAR). • In 2013 CGIAR achieved collective alignment on IDOs and made important progress on how to set SLO targets by association to the SDGs. • Further progress is required in 2014 to define numeric indicators and targets. • The 2014 and 2015 SRF Management Updates will enable a performance based management system for implementation of CRPs to be put in place for the CRP 2nd Call (2017-19).

During implementation the SRF is progressively adjusted to incorporate lessons learnt, respond to evolving contexts or to introduce changes in structures or process that will enhance CGIAR's ability to deliver impact and/or its business operations. The Consortium Board (CB) is responsible for the SRF generally and thus also this SRF Management Update. It has oversight of the whole process, including its implementation after approval by the Funders Forum (or FC for it). Before submission to the CB, the Consortium Office (CO) drafts versions of the SRF Management Update that have received direct inputs from the CRPs, working groups of CGIAR science leaders, the Centers, GFAR and partners (through GFAR) and interested donors.

During 2013 the Consortium has refined and aligned CRP leadership thinking regarding improved definitions of Intermediate Development Outcomes (IDOs) and the process to select and employ metrics for the SRF System Level Outcomes (SLOs). Work streams were executed through Working Groups composed of CGIAR Science Leaders (CRP leaders, DDGs Research, CO, key staff and ISPC)[4] working in close coordination through permanent flows of information and iterative face to face sessions as needed.

The Consortium also invited ISPC, and ISPC agreed, to work together in the development of system level (SLOs) and CRP level (IDOs) Outcomes. ISPC has provided a number of specific inputs to the process, even though the Consortium remains in charge of, and accountable for, the overall process and results.

The 2014 Management Update focuses on establishing an accountability framework based on results. A subset of five CRPs will develop and test results based management (RBM) approaches in 2014 (and this group is likely o expand for 2015 – 2016) and the entire portfolio will adopt evidence results based management approach for the second phase of CRP funding starting in 2017.

Once approved by the CB and FC, the 2014 SRF management update becomes an Annex to the CGIAR SRF. It is expected to have another SRF Management Update (2015-16) before the next cycle of CRPs starts in 2017.

[4] **SLO Working Group**: K. Brooks (Chair), M. Banziger, B. Campbell and L. Solórzano (CO); the ISPC (S. Immonen) provided advice and clarified the intent of the ISPC White Paper but she was not a member of the group for decision-making.
IDO Working Group: P. Dugan (Chair), R. Nasi, G. Thiele, D. Watson, S. Weise, B. Douthwaite (AAS) and L. Solórzano (CO).
Performance Management Working Group: F. Rijsberman (Chair), A.M. Izac (CO), P. Bramel, K. Atta-Krah, B. Bouman, W. Payne, G. Thiele, P. Dugan, and L. Solórzano (CO).

3. PRIORITIZATION

Key Messages

- The current SRF does not provide guidance on how to prioritize research investments.
- In the framing of the SRF and approval of all CRPs there have been no clear targets at the SLO level or clear causal connection between IDOs and SLOs.
- Framing assumptions for the SRF and changes in context conditions require periodic monitoring and validation to secure the continuous significance of the CRP portfolio.
- Emphasis has shifted from primarily (just) producing international public goods to ensuring the realization of development outcomes (i.e., global public goods and their adoption, or integrated delivery into use)
- No recognized technical methodology can produce a set of metrics that fully expresses the system-level objectives and the causal relationship of changes in those objectives due to uncertain nature of scientific discovery.
- CGIAR SLOs are de-facto equivalent to SDGs and SLO metrics/indicators are proposed as a subset of SDG indicators and targets, enabling CGIAR alignment to internationally recognized targets.
- IDOs represent CGIAR's commitment to contribute to the SLOs/SDGs, expressed as quantitative, time-bound and measurable result statements. In that sense, IDOs are the fundamental unit at the appropriate spatial and temporal scale (9-12 yrs) for a CGIAR accountability framework.
- While IDOS generate Global Public Goods, their contribution can be linked to SDGs through explicit impact pathways to development outcomes in specific target countries.
- A rational level for CGIAR to identify justifiable development targets is at the national scale where targets will be defined by governments and their partners as national SDGs' goals that de-facto express the targets to which CGIAR contributes (and the demand for CGIAR's products and services).

The ISPC document on Prioritization cautions that the current version of the SRF presents elements of CGIAR's new strategy but does not yet offer "a results framework for prioritizing research and investment". Traditionally, public funding decisions for agricultural research in CGIAR have been determined by a combination of political interests, trends and scientific preferences of influential scientists and management allocations based on existing

projects and programs. For CGIAR this has been well documented and there is considerable experience tackling the challenges of prioritizing agricultural research for development[5].

Whenever a decision is made to allocate resources to fund a particular type of research at the FC, CB or CRP level there is de-facto an event of "priority setting"; nonetheless, quite often those happen without a "priority assessment", that is, a rigorous process of systematic and transparent appraisal of potential alternatives (i.e., research outcomes) each with varying expected value (i.e., potential development impact), with a likelihood of success properly assessed (i.e., uncertainty appraisal) and financial costs calculated (i.e., value for money offer). Altogether, systematic priority assessment can inform quality decision making by investors and scientists seeking to deliver greater impact.

CGIAR's core contribution and impact boundaries across the global agricultural research space require careful consideration and the Consortium needs to clearly set out what it sees as its unique role and functions in agricultural research for development (AR4D). In the context of a rapidly changing world, it becomes important to maintain a clear and coherent institutional purpose to ensure the best value contribution will result from public and private international investments in agricultural research for development.

CGIAR's former and broad emphasis on international public goods has shifted and the system is now committed to both, continue generating global public goods but with a clear connection to explicit targets to be deliver results on the ground with potential for out-scaling. This shift recognizes that to achieve global impact, CRP level targets need to be defined at actionable and measurable scales (i.e., country level) and that partnerships with other actors are essential to complete delivery. Under this framework, CGIAR must have specific and identifiable roles relative to other actors, in particular given the changing status of national systems and the rise of alternative research providers. Both the system and CRP level prioritization should explicitly address CGIAR's competencies as well as its boundaries, its comparative advantages and the roles of others (see Figure 1).

[5] Prioritizing Agricultural Research for Development: experiences and lessons (2009), Edited by D.A. Raitzer and G.W Norton CABI

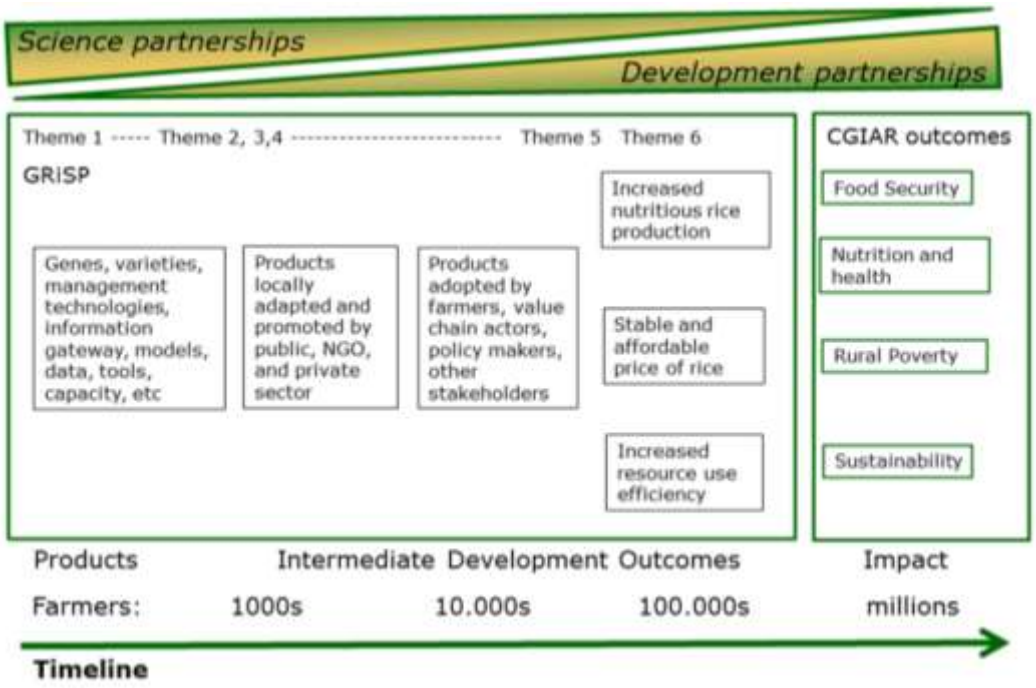

Figure 1: Example from GRiSP illustrating a simplified pathway from science products to development impacts scales of impact and the shifting accountability and predominance of science and development partnerships along the impact pathway (GRiSP, June 2013).

At the system level a good decision framework to set priorities and allocate resources requires a transparent process integrated within an ***Appropriate Frame***. Three elements contribute to an appropriate frame:

1- ***Clear Purpose***, for CGIAR this is defined clearly defined in the vision/mission statement "a global research partnership for a food secure future";

2- ***Defined Scope*** that for CGIAR Scope is given by the System Level Outcomes –less rural poverty, better food security, better nutrition and health and sustainably managed natural resources– that specify what is inside and what is outside the frame;

3- ***Conscious Perspective*** that reflects and appraises the Framing from a broader perspective to identify its limitations and detect missing opportunities.

Failure to have the CGIAR Frame periodically validated can lead to major drawbacks. For the 2014 SRF Management Update it implies:

1- Making the case that the SLOs do not represent a too wide or narrow scope given the purpose vision mission –e.g., assessing the reasoning for focusing on small scale rural agriculture and the limitations of these scope constraints to achieve the SLOs of less rural poverty and sustainably managed natural resources;

2- Assessment of the unstated assumptions underlying the notion that agricultural research is central to achieve the four system level outcomes given that the ISPC White Paper on SLOs was inconclusive on this regard;

3- Evidence based review that in addressing the global challenge of a food secure future, by focusing primarily on smallholder production while ignoring the demand side –i.e., projected massive middle class mobility, changing diets, and increased affluence driving massive increase in consumption by about 4 billion people over the next decades–CGIAR is not setting the right scope and therefore failing to address the problem at scale.

Clarity on Framing is essential to establish logical Theories of Change and defensible Impact Pathways that explain the contribution of IDOs to the SLOs as well as the association to or equivalency of SLOs and SDGs. For the second call of CRP proposals the quality in the Framing dimensions of the SLOs will be assessed top-down in terms of scope and assumptions to confirm that the four basic objectives of the SRF are still relevant and bottom up to make sure that the IDOs can be clearly associated to SLOs and SDGs. The validation of the framing will be done by the IDO, SLO and Results Based Management Working Groups and the ISPC.

3.1 Changes in Context since 2011 SRF

[TO BE ADDED: This section will present a discussion on what has changed since the 2011 SRF document was approved and connotations for planning CGIAR research investments. For instance:

- Recent advances / studies / policy statements related to food security, poverty, nutrition, and sustainable management of natural resources
- UN zero hunger challenge
- Positions on key challenges in the world
- SDG development & needs for CGIAR contribution to define agriculture-related goals, metric/indicators.
- Urbanization trends, and potential contribution of vertical/urban agriculture to food security & urban poverty
- Adaptive planning of CRPs' research in light of results from Farm-size studies and foresight on economic development corridors]

3.2 System Level Outcomes (SLOs)

The original SRF SLOs are broad, qualitative expressions of demand for CGIAR scientific products and services that reflect aspiration levels and high-level priority targets of public and private development donors and investors. In that form, SLOs are useful statements to indicate the domains of intervention in the broader field of rural development but less helpful in terms of providing practical information and guidance to decide what research to do, where to do it, when to start and in what sequence. In order to formalize these ambition statements into explicit development targets (i.e., outcomes), at the System Level CGIAR has taken a "top-down" approach by framing IDOs within the SLOs and making the decision of aligning SLOs to the new Sustainable Development Goals (SDGs) which will become internationally agreed targets effective post 2015.

This decision fulfills three important functions: 1) it adheres CGIAR system level targets to internationally agreed standards, targets and commitments that are defined, monitored at

the country level and reported globally; 2) it recognizes that ultimate responsibility and ownership of development targets belongs to beneficiary countries and is done by national governments; and 3) assigns CGIAR responsibilities as technical advisor to the international community and partner countries to define metrics and indicators for SDGs associated with food security, poverty elimination, nutrition and sustainable management of natural resources.

CGIAR will select no more than ten indicators, the same or equivalent to SDGs capturing the four strategic results with explicit links to specific geographic domains (i.e., countries). The geographic domains of measurement would be defined according to basic principles:

- CGIAR is present and active, as seen in the mapping exercise of CRPs' distributions.
- The issue to which the indicator corresponds is important in that geography – country– and therefore the geographic domain may differ for specific targets and their indicators.
- Countries have committed to change and have targets.
- In addition to CGIAR, development partners have agreed to assist pursuing change and targets.

CGIAR wants to be recognized for working in partnership and targets will be national targets set by national counterparts. CGIAR together with partners (e.g., multilateral and bilateral donors, NGOs, FAO), will assist countries in meeting targets by providing knowledge, finance, and capacity building according to the comparative advantage of each. Measurement will also be done by national systems, with CGIAR technical assistance as needed. Measurement at the aggregate level for SLOs will be supplemented by measurement at the CRP level. CGIAR is accountable to contribute to achievement of development outcomes, but does not attribute progress solely to its work or seek to assign proportions. Accountability is to be addressed through feedback from stakeholders on the relevance, quality and timeliness of CGIAR's work.

The connection between CGIAR research and its overall contribution to SDG targets will be planned, monitored and reported on through Impact Pathways and Theories of Change that describe the contributions of CGIAR research outputs in specific geographic domains (i.e., country levels). These targets would indicate in better detail the degree to which CGIAR Consortium members and CGIAR investors aim to contribute to the resolution to these global challenges in particular geographies. The intent is to link the work of CGIAR to international accepted development goals, such as those pursued by, and accepted as key guidance by partner target countries, the international community and CGIAR investors.

SDG level monitoring and reporting are functions to be independently fulfilled by national governments and partner international agencies (e.g., FAO). The basic approach to updating the SLOs for the SRF management update includes a proactive CGIAR engagement in the process of defining metrics and indicators for those SDGs related to agricultural research for development. Once these SDG metrics and indicators are agreed on, CGIAR will support

target countries in defining national targets and developing capacity to design and implement monitoring and reporting protocols. National targets will be defined by governments and formalize the demand for CGIAR products and services at country levels.

Specific steps to define SLO/SDG targets are:

1) Validation that CRPs have interpreted the SLOs objectives with reference to their mandated areas and that those goals are reflected in the set of common IDOs.

2) Conceptual mapping IDOs and SLOs to MDGs – making a case that the four SLO objectives map well to elements of the SDG agenda now becoming clearer, and CGIAR is positioned to align and contribute to this shared effort.

3) Focus on the SDG objectives that are most directly related to food security, poverty, nutrition and natural resource management.

4) Table 1 shows proposed SDGs with a direct link to CGIAR science outputs and associated development targets. The Consortium will write explanations that rationalize the association between these specific SDGs and the CGIAR SLOs based on the ToC and Impact Pathways of IDOs. This is work in progress and will be formalized by the IDO and SLO Working Groups during 2014.

5) Contributions of CGIAR are global public goods and broadly applicable, but their time-phased implementation, separately and together, can best be pursue, measured and assessed in selected countries where there is an active presence of a number of CRPs and commitment to adoption by national partners.

6) The Policies, Institutions, and Markets (PIM) CRP has completed a spatial mapping of geographic locations where the current CRPs portfolio undertakes research activities under the approved funding cycle and this mapping exercise will be updated with locations based on revised CRP proposals 2017 – beyond (see Figure 2).

7) The mapping of CRP research sites enables identification of priority countries (i.e., first order spatial domains) for CGIAR impact. These are primary geographies where CGIAR science results can/will be demonstrated and scaled up/out later ;there are also research trials in other countries that share similar biophysical or socio-economic conditions but are not primary target domains in Theories of Change (ToC) and Impact Pathways (IPs).

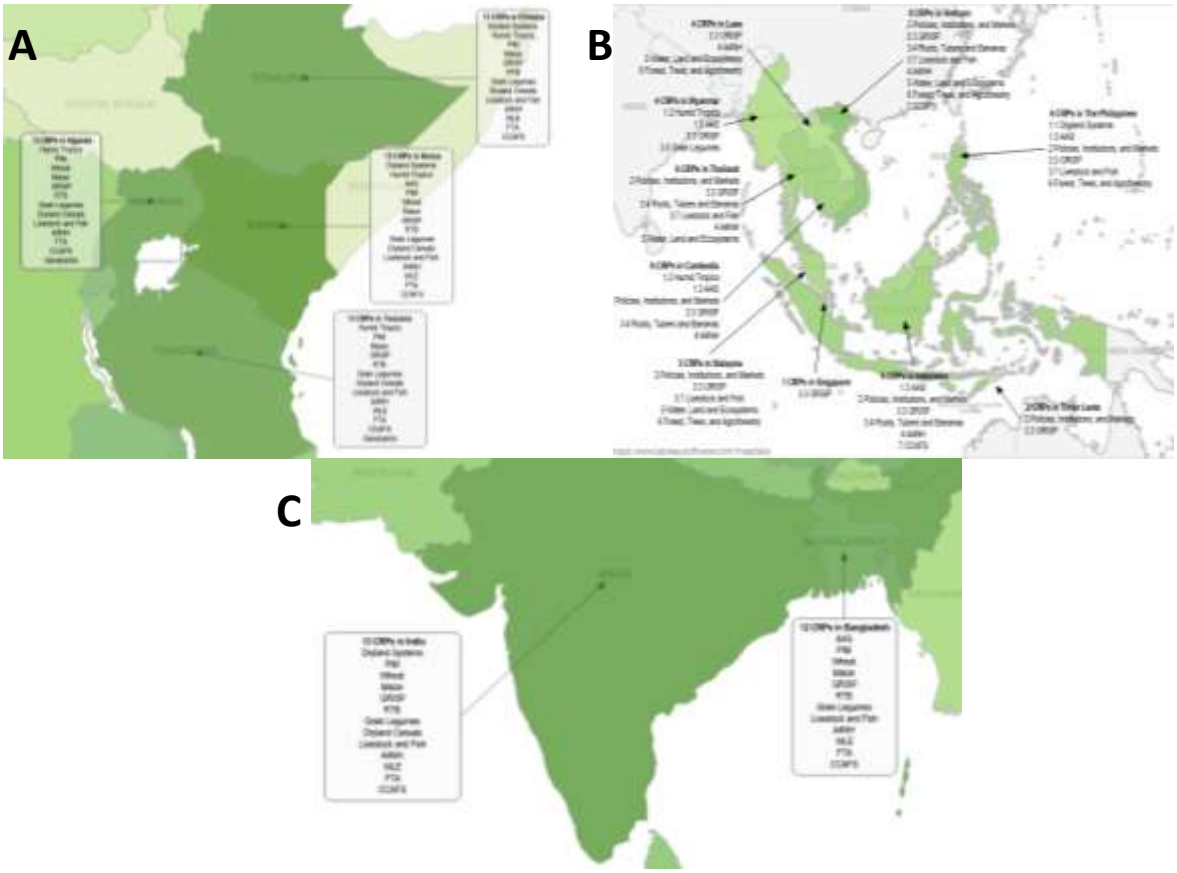

Figure 2: Map of CRP presence in A) East Africa, B) South East Asia, and C) India/Bangladesh (PIM/IFPRI, September 2013). Co-location of CRPs provides opportunities for comprehensive and better articulated planning and response to targeted national demands of CGIAR science.

8) Measurement of change in agreed SDGs Universal Goals and National targets and indicators will thus be restricted to these selected countries (probably no more than 10 SLO/SDG indicators). Nonetheless, system-level metrics (i.e., SDG level), even if reported on an annual basis, should not be used for annual adjustments in funding, but rather to uncover longer term trends that may warrant adjustment.

9) The quantitative SDG targets adopted by selected first order countries combined with the rationale framework that links CGIAR SLOs/IDOs:- SDGs will determine the country-based targets for the CGIAR.

10) For first order target countries, CGIAR will work with local governments and development partners to set ambition levels upon which CRPs define their contribution to development goals (e.g., in country X CRPs A4NH, RTB and FTA together with partners define for SDGs changes by year 2025 of: stunting reduction of 80%, increase in yields for tuber crops of 50%, and reduction in deforestation of 70% with respect of 2010 baselines)

11) Ambition levels for the four system-level objectives will include gender-specific targets that are valid in terms of gender equity goals critical to impact and linked to internationally accepted development goals for closing the gender gap in agriculture. Consideration will be given to the adequacy of sex-disaggregated data for expressing gender equality and to the need for other indicators and metrics that capture dimensions of gender equality not measurable with sex-disaggregated data.

12) For selected countries, specific definitions of common indicators will be agreed with national counterparts and other partners and a shared commitment to time-bound targets and measurement of baselines and development impact will be undertaken. Responsibility for implementation will be jointly and attribution of impact will be shared.

13) The Global Public Goods contribution/impact of CGIAR science/outputs will result from target country spill overs to other geographies (i.e., second order spatial domains). These likely spill-over contributions/impact can be estimated employing probability functions of impact that decrease along gradients of enabling conditions (i.e., changing policy, environmental, economic, social conditions) which are specific to each country.

14) The aggregated targets across first and second order countries will define the total CGIAR aspiration to contribute to the SDGs including the assessed likelihood of success from first to second order impact domain countries.

15) The aggregation of expected impact in selected first and second order countries will be indicative of the broader aspirational contribution of CGIAR and stated including uncertainty assessments.

16) Due to the global nature of the scientific products, it is possible to identify targets at scales of first and second order countries but increasing uncertainties prevent defensible forethought of global level targets. Similarly, global impact contribution is practically intractable but CGIAR contributions to setting development goals and influencing changes in first and second order domains is possible and tractable within reasonable uncertainty levels.

17) Targets' and CRPs' likelihood of success can be monitored and assessed periodically as research progress are made and local and global context conditions change.

Table 1. Illustrative Examples for SDGs Universal Goals and National Targets

[1] Candidates for global minimum standards, including "zero" goals

[2] Indicators to be disaggregated

[3] Targets require further technical work to find appropriate indicators

SDGs directly associated with SLOs are highlighted in green

Goals	National Target / Indicators
End Poverty	**1.a.** Bring the number of people living on less than $1.25 day to zero and reduce by x% the share of people living below their country 2015 national poverty line [1,2] **CGIAR (AAS):** • 60% increase in income from AAS value chains in 50,000 poor households in the Barotse floodplain of Zambia, with 40% of that income earned by women
Empower Girls and women and Achieve Gender Equality	**CGIAR (AAS):** • 50% increase in income from AAS value chains in 500,000 poor households in the Polder Zone of Bangladesh, with 40% of that income earned by women
Provide Quality Education and Lifelong Learning	
Ensure Healthy Lives	**CGIAR (RTB):** • 30% increased in mean Vitamin A intake from orange-fleshed sweet potatoes for 500,000 pregnant and lactating women and children under three in poor households in Mozambique (RTB)
Ensure Food Security and Good Nutrition	**5a.** End hunger and protect the right of everyone to have access to sufficient, safe, affordable and nutritious food [1,2] **5b.** Reduce stunting by x%, wasting by y%, and anemia by z% for all children under five [1,2] **5c.** Increase agricultural productivity by x% with a focus on sustainably increasing smallholder yields and

	access to irrigation[3] **CGIAR (L&F, AAS):** • 50% increase in milk consumption among women and children in 100,000 poor rural households in Tanzania (L&F) • 50% increase in consumption of nutrient rich small fish and vegetables by women and children in poor rural households in Bangladesh (500,000) and Zambia (50,000) (AAS)
Achieve Universal Access to Water and Sanitation	
Secure Sustainable Energy	**7a.** Double the share of renewable energy in the global energy mix
Create Jobs, Sustainably Livelihoods and Equitable Growth	
Manage Natural Resource Assets Sustainably	**9a.** Publish and use economic, social and environmental accounts in all governments and major companies [1] **9c.** Safeguard ecosystems, species and genetic diversity **9.d** Reduce deforestation by x% and increase reforestation by y% **9e.** Improve soil reduce soil erosion by x tonnes and combat desertification
Ensure Good Governance and Effective Institutions	
Ensure Stable and Peaceful Societies	
Create a Global Enabling Environment and Catalyze Long-term Finance	**12a.** Support an open, fair and development-friendly trading system, substantially reducing trade-distorting measures, including agricultural subsidies, while improving market access of developing country products [3]

An additional effort on metrics will focus on CGIAR's work on farming systems and setting targets and metrics for natural resource management. This work is not at present well captured in the various efforts but must nonetheless be well considered in the system-wide

priority-setting process. The SLO working group is undertaking work to clarify how best to identify specific pathways through which activities addressing natural resource management (NRM) contribute to SLOs. These additional discussions will occur through an interdisciplinary working group (made of agricultural and development scientists together with, government officers, social scientists, ecologists, and conservationists) to be co-sponsored by CGIAR, the National Center for Ecological Analysis and Synthesis at the University of California – Santa Barbara, the Nature Conservancy (TNC) and the Wildlife Conservation Society (WCS) as part of the new scientific collaboration Science Nature and People (SNAP).

The strategic relevance of defining SLO targets and subsequently the CRP IDOs is that if the ambition level of CGIAR investors is to use the CRP portfolio as a key instrument to reduce the number of food-insecure people in the world by 500 million over the next 15 years, for example, then we can scope and scale the investments and ambition level, impacts and outcomes required to meet these targets at country levels. Joint accountability with the countries and other development investors and partners is particularly important for setting targets, monitoring and assessing CGIAR contribution. Important uses of metrics also include program level learning and adaptive management, facilitating understanding and priority setting and to assure constituencies – including donors – that assistance and investments are put to good use.

3.3 Program Level Outcomes (IDOs)

The ISPC defined Intermediate Development Outcomes (IDOs) as "a change, in the medium term, that is intended to affect positively the welfare of the targeted population or environment resulting in part of research carried out by CGIAR (among others)". The ISPC White Paper on Strengthening the SRF through Prioritization[6] recommends specification of CRP IDOs at appropriate scale and articulation of impact pathways linking research results to the four SLOs.

The intermediate development outcomes are attributable to CRP level activities and are necessary precursors and logically linked to the SLOs. At the CRP level, IDOs are targets representing CRP-specific thrusts and target domains in terms of estimated volume of benefits. Ultimately, IDOs result from multiple activities by diverse actors outside CGIAR and can be documented through CRP level outcome reporting and impact assessment studies. The IDO-WG and CRPs have refined a coherent set of eleven harmonized, "bottom-up" IDOs and impact pathways/Theories of Change (see Table 2).

[6] ISPC, Strengthening Strategy and Results Framework through prioritization, June 22, 2012

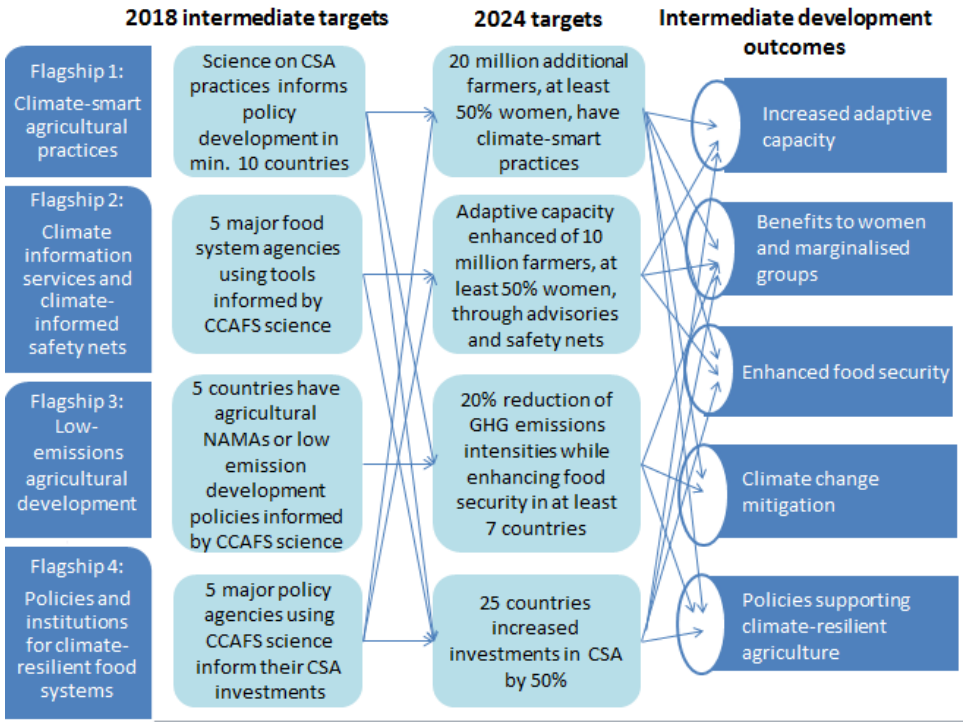

Figure 2: Illustration of CCAFS' IDOS targets and final program targets for the different Flagships, showing the inter-relationships amongst targets and IDOs (CCAFS, September 2013).

This set of common IDOs was discussed with the ISPC (April 2013) and a group of representative stakeholders and investors (June 2013).

In a top-down approach, the design principles of IDOs emphasize a focus on important dimensions of the CRPs' contribution to the SLOs that should be reflected in CRPs' strategic objectives. The design principles employed to define the set of eleven common IDOs were:

1. **Focus on a single important dimension** of the CRP contribution to the SLOs
2. **Top-down**: reflects CRP strategic objectives, not existing project portfolio or most easily measured
3. **Explicit Impact Pathways and Theories of Change**
4. **Focus on direct benefit / enabling environment:** Targets framed at level of improvement in the enabling environment or direct benefits
5. **Pro poor and gender dimensions explicit** across IDOs
6. **A dedicated gender IDO may be appropriate** for some CRPs
7. Each IDO is based on a **realistically long time horizon** (9-12 years) **Specific target statements** specify the scope of the IDO:
    a) **Commodity**

b) **Primary indicator** (e.g., income) by which achievement will be evaluated

c) **Beneficiary group**

d) **Geographical scope**

e) **Quantitative target**

Table 2. Common set of CRP IDOs after two rounds of discussions.
1. Productivity - Improved productivity in pro-poor food systems
2. Food security - Increased and stable access to food commodities by rural and urban poor
3. Nutrition - Improved diet quality of nutritionally-vulnerable populations, especially women and children
4. Income - Increased and more equitable income from agricultural and natural resources management and environmental services earned by low income value chain actors
5. Gender & Empowerment - Increased control over resources and participation in decision-making by women and other marginalized groups
6. Capacity to Innovate - Increased capacity for innovation within low income and vulnerable rural communities allowing them to improve livelihoods
7. Adaptive capacity - Increased capacity in low income communities to adapt to environmental and economic variability, shocks and longer term changes
8. Policies – More effective policies, supporting sustainable, resilient and equitable agricultural and natural resources management developed and adopted by agricultural, conservation and development organizations, national governments and international bodies
9. Environment - Minimized adverse environmental effects of increased production intensification
10. Future Options - Greater resilience of agricultural/forest/water based/mixed crop livestock, aquatic systems for enhanced ecosystem services
11. Climate - Increased carbon sequestration and reduction of greenhouse gases through improved agriculture and natural resources management

These eleven common IDOs target across CRPs: Productivity (food systems), Food Security (better access), Nutrition & Health (increased consumption), Income, Gender (more equitable costs and benefits), Capacity to Innovate, Risk Management (adaptive capacity),

Policies (enabling environment/ institutions), Environment (minimize adverse effects), Future options (enhanced ecosystem services), and Environment (reduce climate change). The impact pathways for IDOs often interconnect them and the achievement of any SLOs/SDGs target will require the contributions from two or more IDOs plus additional non-agricultural development investments (e.g., education, sanitation, infrastructure, etc.; see Figure 3).

The new set of IDOs offer CRPs the opportunity to establish a realistic accountability framework and as a result, a stronger theoretical framework is emerging across the portfolio highlighting the growing awareness amongst the CRPs of the value of IDOs in helping to focus CRPs on development impact.

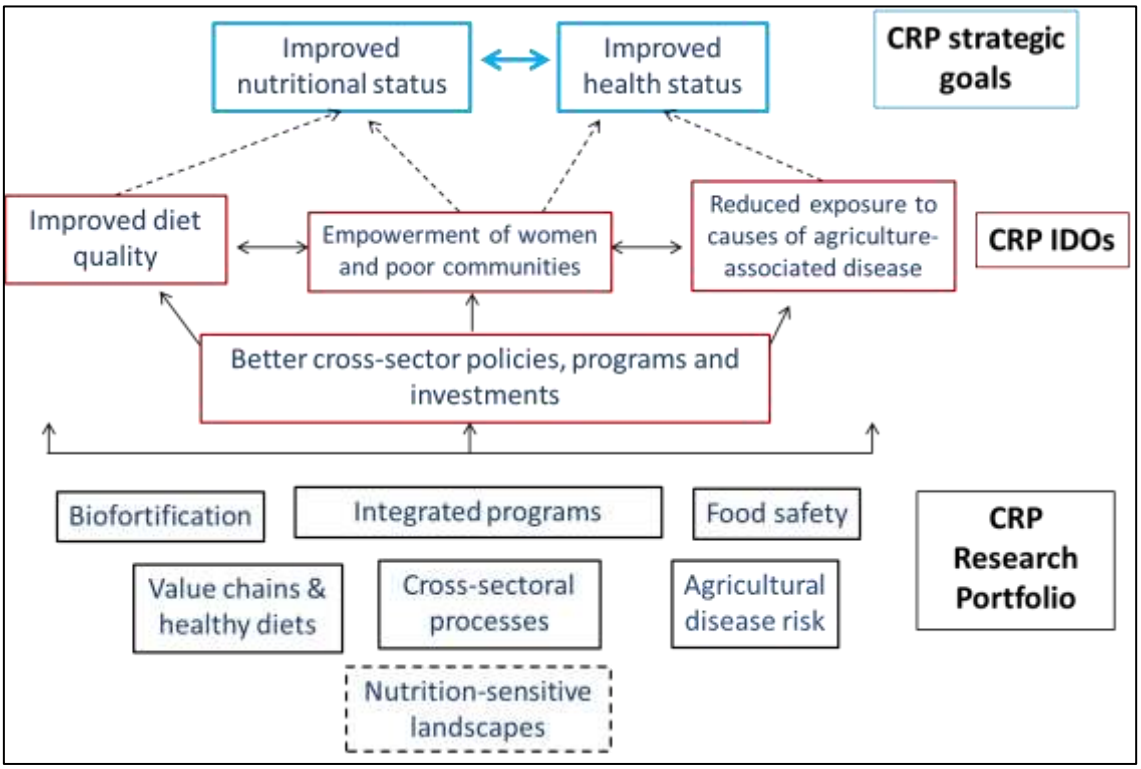

Figure 3: An example of Results framework for Agriculture for Nutrition and Health. The dotted lines between the IDOs and goals reflect the fact that improvements in agriculture are not, in most cases, sufficient to influence goal-level indicators. Understanding, documenting, and scaling up lessons about how agriculture can better align with sectors like water and sanitation or social protection to reduce stunting, child mortality, or disease prevalence will be an important part of our research and our partnership agenda. The dotted line around the nutrition-sensitive landscapes research area reflects that this is new area that is still being developed (A4NH, September 2013).

Quantitative targets are being framed in terms of as direct benefits for the poor or improvement in the enabling environment. Each IDO has a specific statement stipulating its scope (e.g., commodity or system), beneficiary group, geographical scope and primary indicator (e.g. income) by which achievement will be evaluated. Gender is made explicit across IDOs and as the specific focus of a dedicated gender IDO. The minimum time frame

assumed for achieving measurable IDOs' impact is after 9-12 years but shorter or longer time lags to detect impact are expected depending on varying contexts. These principles are explicitly formalized in impact pathways and theories of change with clearly stated assumptions (Figures 3 and 4).

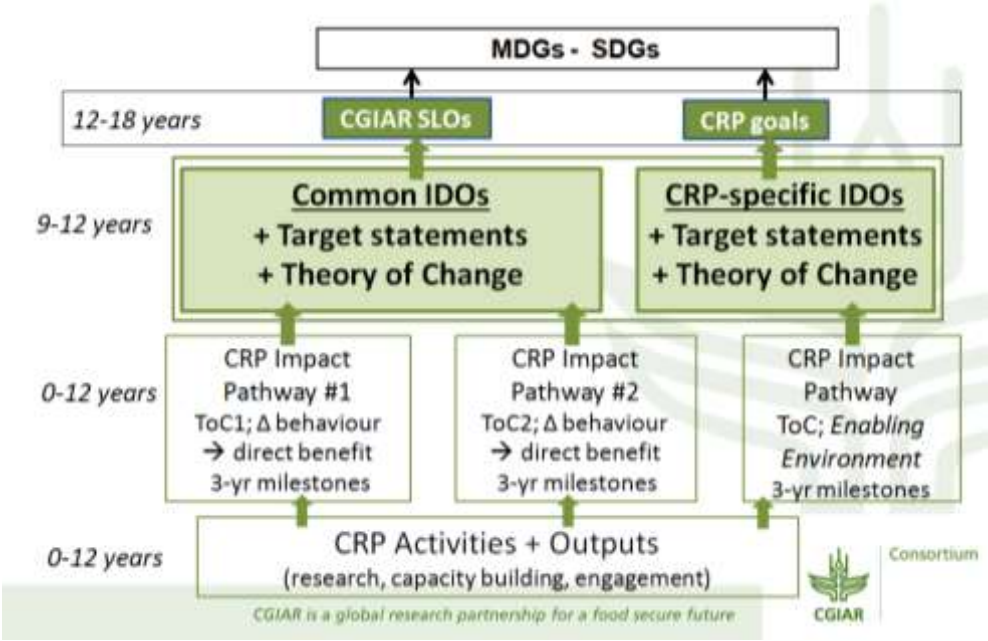

Figure 4: An accountability framework linking research outputs to global development goals.

Overall, the current set of Common IDOs are adequate in terms of covering much of the CRP activities and any additions or substantive changes should only be considered after working with this set for some time. In addition to the Common IDOs, some CRPs would have CRP-specific IDOs not associated with a Common IDO. Further, within a Common IDO group, CRPs would often have CRP-specific wording of their Common IDO. The working group will further assess the individual Common IDOs set and tighten definitions by focusing on developing associated metrics.

Many of the IDOs are likely to require delivery and out-scaling beyond CGIAR's institutional mandate, and therefore partnerships will be essential to achieve, on the ground development outcomes successfully. The core idea is that while CRPs will not include – or finance - the activities related to development and out-scaling, they will be held accountable for building the partnerships that will ensure that innovations developed by CRPs can be adopted and reach scale.

In addition to setting clear and comparable targets, Common IDOs are useful in joint planning efforts by CRPs to work together towards one or more SLOs/SDGs goals (Figure 3) and for the Consortium to look across CRPs to assess relative and cumulative contributions to targets, the balance in the research portfolio and embark on outcome-based comparative performance management. Developing the Common IDOs has been useful and a set of generic indicators for Common IDOs are expected and will be helpful as guides and examples. It is not reasonable to expect uniform indicators across the board for all CRPs.

The Consortium has also identified challenges and potential perverse incentives that could result from a process where results are defined as measureable development impact (which takes decades of continuous funding) and use metrics of that impact to inform short-term (i.e., 1-3 years) funding decision making. In particular, there are concerns about perverse incentives to shift to sure, short-term wins while letting longer-term research pipelines go dry and discouraging higher-risk, higher-return upstream research that would altogether kill innovation. Other concerns related to measurable development impact include pressure to take over the role of development partners; potential to ignore other initiatives; potential to ignore harder environments to work on; pressure to overpromise and focusing on the measurable versus the important research for development issues.

3.4 Closing the Gap between System (SLO) and Program (IDO) Level Outcomes

During the framing of the SRF and approval of all CRPs there have been no clear targets at the SLO level or clear causal connection between IDOs and SLOs. The ISPC white papers on Prioritization and SLOs noted the inherent complexity of the task, the inter-relatedness of the strategic objectives, and potential contradictions between and among them (e.g., reduction of rural poverty in the short run by mining the resource base). The ISPC also provides cautionary notes and caveats, but little practical guidance on a framework to measure progress or methods to prioritize at the SLO level and the causal relationships to IDOs. There are limits in present knowledge about causal relationships linking research to development impact at the SLO level and the ISPC points to significant differences in the functioning of impact pathways across different regions that need to be recognized and characterized; nonetheless this gap must be addressed.

The meetings with ISPC (March) and the FC (April) helped reach conceptual agreement on the following fundamental issues with respect to SLOs and IDOs:

- No recognized technical methodology can produce a set of metrics that fully expresses the system-level objectives and the causal relationship of changes in those objectives due to scientific discovery. Therefore, in addition to Intermediate Development Outcomes (IDOs) a System-level Theory of Change and Impact Pathway will be developed to link aspirations and measurable outcomes. This System-Level Theory and Pathway will be heuristic and logical, rather than rigorous and empirically tested. Assumptions embedded in it will be displayed transparently and validated periodically
- The association between aspirations and metrics to measure progress will rarely be exact, as there are multiple inherent uncertainties from target setting to testing scientific hypotheses and monitoring and assessing impacts
- The choice of metrics will require judgment informed by knowledge of the possibilities and limitations of the scientific work to be undertaken and motivated by commitment to the aspirations –of donors and countries. The choice must also take into account constraints of parsimony (not too many indicators and not too few), uncertainties, and cost effectiveness of measurement

- Inappropriate definition or use of metrics could introduce heightened risks; for example, risk of emphasis on short term gains, diversion of effort from science to implementation, or neglect of very difficult clients or issues

The Intermediate Development Outcomes represent CGIAR's commitment to contribute to the SLOs/SDGs, expressed as quantitative, time-bounded and measurable result statements. In that sense, IDOs are the fundamental unit at the appropriate spatial and temporal scale for a CGIAR accountability framework. Although definite, causal, quantitative links between IDOs and the SLOs remain a challenge, the definition of clear metrics and indicators is expected to help close that gap.

The IDO and SLO work streams are now merging to look at linkages between the IDOs and the SDGs by focusing on metrics, indicators and targets under these. It is expected that this work will generate a set of ± 20 indicators across the common IDOs that are derived from the indicators being developed for the SDGs. For each CRP that expects to contribute to a particular common IDO, we will use common indicators agreed for that IDO – and then specify the geographically specific target that will be pursued. This work will not however be completed by April 2014, and full incorporation of these indicators will only happen when CRPs develop the proposals for the next phase. In a first conceptual stage, the CRPs have charted the qualitative causal connection between their IDOs and the SLOs (see Table 3).

Table 3. Initial conceptual charting of CRPs' IDOs to SLOs based on qualitative causal relations between expected IDO outcome/results and SLOs aspirational targets.

Revised Common IDO	SLO 1 Reducing Rural Poverty	SLO 2 Improving Food Security	SLO 3 Improving Nutrition and Health	SLO 4 Sustainably Managing Natural Resources
1. Productivity		10 CRPs / 14 IDOs		
2. Food security		6 CRPs / 6 IDOs		
3. Nutrition			10 CRPs / 11 IDOs	
4. Income	11 CRPs / 11 IDOs	11 CRPs / 11 IDOs	11 CRPs / 11 IDOs	
5. Gender & Empowerment	7 CRPs / 7 IDOs			
6. Capacity to Innovate	2 CRPs / 2 IDOs	2 CRPs / 2 IDOs	2 CRPs / 2 IDOs	
7. Adaptive capacity	6 CRPs / 6 IDOs	6 CRPs / 6 IDOs		
8. Policies	8 CRPs / 14 IDOs	8 CRPs / 14 IDOs		
9. Environment				5 CRPs / 6 IDOs
10. Future Options		4 CRPs / 4 IDOs		4 CRPs / 4 IDOs
11. Climate				2 CRPs / 2 IDOs

Depending on the context, short-, medium- and longer-term indicators are needed. But, there is a history of developing and tracking too many indicators, creating an onerous burden. It is important to focus on a few indicators that are actually used by CRPs. CRPs will be learning about the utility of indicators as implementation proceeds and therefore flexibility in modifying indicators is needed, especially those associated with implementation and CRP management.

IDO indicators that can be linked – directly or indirectly – to SDGs will serve a variety of key functions including: 1) target definition grounded in sound evidence and assumptions; 2) CRP level monitoring; 3) progress and performance assessment against IDO targets; 4) informing CRP, Consortium and donor level investment decisions; and 5) framing of future evaluations and impact assessments. Indictors need to be seen in the context of the theories of change and impact pathways being developed and will also be used as a means of tracking progress along the pathways.

The definition of targets, metrics and baselines will be done in partnership with governments of target countries. Baselines can be useful especially at the local level and when seen and used as 'situational analyses' and 'diagnostic surveys'. Baselines seen as before and after evaluation designs may not always be practical nor useful in the changing and complex settings many CRPs are working in. In most cases, baselines for measuring scaling up need to use secondary data and will need to be used with adoption studies.

There is a need to distinguish among indicators that may be collected only infrequently over a 5-10 year period, and those needed for more immediate management needs to track progress. Indicators should not automatically imply an annual data collection process. When possible, secondary data will be used to track indicators and while CGIAR will provide technical advice and expertise, the national level monitoring is a function of national governments and international agencies with that function (e.g., FAO).

The IDO Working Group is also engaged with CRPs looking at useful approaches (such as outcome mapping and participatory impact pathway analysis) to track progress along impact pathways as a way to complement the use of hard outcome level indicators to monitor and report progress from the IDO to the SLO/SDG levels.

Mapping of CRP activities by country has been completed by PIM/IFPRI (Figure 1) and supplements ongoing efforts by CRPs to link their development goals and ensuing research activities to national level targets (i.e., SDGs). In addition, mapping of CRP targets and research activities also help to articulate across the CRP portfolio as opposed to having national and regional strategies constrained by individual CRPs or their simple addition. The development of such country-level or regional strategies is expected to result from interactions between multiple CRPs and a coherent CGIAR engagement with local governments and partners –not CRP by CRP multiple times. Co-development of country and regional level strategies will facilitate the logical engagement of development partner and investors in impact pathways that include all CRPs contributing to a target country. CRPs will

work in the first semester of 2014 to synthesize their national and regional strategies to be able to approach consultations with national and regional partners offering a comprehensive CGIAR portfolio designed to meet national SDG targets and regional demands for science as opposed to offering multiple, individual CRP value propositions.

With a reduced and common set of IDOs that can be linked to SLOs (and soon to SDGs), the Consortium is collectively establishing an accountability system that defines clear, measurable development outcomes and process and systems for tracking progress made. Target definition and tracking take place both at the system (SLOs) and at the program (IDOs) levels (Figure 4).

Place holder for a closing paragraph on IDOs & Integrated Delivery. This is meant to explain that (IDOs = global public goods + integrated delivery) (or adoption / research into use), i.e. we are very much focusing on "intergrated delivery throughout this document - to some extent it is the most important paradigm shift compared to the earlier Globa Public Goods only focus.

Old paradigm Global Public Goods (GPGs); new one = GPGs + on the ground delivery (e.g., genetic improvement in farmers' fields, i.e. DFID's "research into use).

4. RESULTS BASED MANAGEMENT

Key Messages

- Results based management allocates resources to activities for the CRP portfolio as a whole, the optimum outcomes [CRP outcomes that most closely approach the System Level Outcomes].
- When the international community commits to Sustainable Development Goals (SDGs) and beneficiaries [beneficiary countries] and investors determine the SLO-related targets at national level then those represent CGIAR's demand [or, the demand for international publicly funded agricultural research for development].
- When CRPs specify the outcomes (IDOs) they aim to deliver, together with the cost to achieve those outcomes (the value proposition) then those represent the CGIAR's supply.
- The allocation of resources to CRPs by the FC at the time of CRP proposal review and approval and the subsequent allocation of W1-2 resources to CRPs by the Consortium in the CGIAR Financial Plans are the key results based management tools in the new CGIAR.
- The FC should allocate resources to CRPs based on an analysis of the portfolio as a whole as well as the value proposition from each CRP.
- The Consortium should monitor the performance of CRPs to ensure they are on track to deliver the proposed outcomes.
- CGIAR stakeholders should discuss to what extent resource allocation should take into account that research is a risky business, which implies that ex-ante impact assessments are uncertain and resource allocation should have an element of flexibility to invest where and when opportunities arise.

A successful performance management system requires clear and up-front definitions of the results that will determine unsatisfactory, satisfactory and excellent performance as well as a credible monitoring system to assess the agreed results. Because the 2011 SRF did not specify measurable targets for CGIAR at system level, and the first-phase CRP proposals did not propose clear measurable targets that could be assessed against desired progress at system level, performance management has not been possible at CRP and CRP-portfolio level to date.

The previous chapters have laid out the approach through which quantitative targets can be set at system level (the demand for CGIAR results), as well as the CRP level IDOs that can be used to measure progress against those (the supply of CRP level results towards that demand).

Once these system and CRP level outcomes and their associated indicators and targets have been set, the basic building blocks for the development of a results based management system will be in place.

Key elements of the proposed CGIAR results based management system are:

- The time it takes to move from basic research to delivery of development outcomes.
- The risks inherent in every research program.
- The mechanisms to allocate resources based on performance (i.e. results delivered).
- Monitoring, reporting, evaluation and impact assessment.

4.1 Time to achieve development outcomes

The relevant research-for-development timescales for the CGIAR are:

- Time horizon to achieve CGIAR system level outcomes is equal to the time horizon for SDGs: 15-20 years.
- Time horizon to achieve CRP IDOs: 9 – 12 years.
- Time horizon of the proposed CGIAR funding cycle (i.e. the CGIAR Financial Plan for the second phase of the CRPs): currently proposed as 3 years [or 4-5 years if that is preferred].
- Time horizon for reporting and monitoring progress towards outcomes: annual.

The SRF will set the 15-20 year SLOs for CGIAR, i.e. the SDGs the international community commits to, combined with the national goals and targets of the countries CGIAR works in.

The CRP proposals specify both the 9-12 year IDOs that the CRPs aim to deliver, with quantitative indicators and targets to the extent feasible, as well as the progress indicators and targets corresponding to the 3-year funding proposal submitted (e.g. in 2016 for the period 2017-2019, to assess progress during the work plan period towards the IDOs).

In addition the CRPs, the Consortium and the FC will have to agree on the progress indicators to be used for monitoring progress towards the 3-year targets, and in turn the 9-12 year CRP IDOs.

It is recognized that it can take many years for investments in basic research, say gene discovery, to result in development outcomes in terms of genetic gain in farmers' fields that can contribute to reduced poverty or food insecurity. It will still be relevant to specify the complete timeline from basic research to development outcomes and the associated milestones. Reducing the time from basic research to adoption of new technology by farmers is itself an important goal of well managed research and should be taken into account as part of the performance of a research program.

Moreover, many of the current research programs in the CRP portfolio are based on earlier research and there may therefore may development outcomes that occur over the next three years, based on earlier investments. To manage such long term research through

three-year funding cycles it is proposed to use the research pipeline concept. This implies that a program proposes investments in basic research in a given period that are justified based on the outcomes delivered during the same period plus the (delta in) the value or health of the pipeline. This requires that the product pipeline is enumerated and assessed as part of the research proposal.

4.2 Managing Risks

Research is inherently risky business and ex-ante impact assessment is therefore subject to a large amount of uncertainty. Investors should encourage researchers to take the appropriate level of risk and a healthy research portfolio will have a balanced risk profile to ensure a relatively steady flow of high value products. Research managers need the flexibility to re-allocate or re-assign resources away from hypotheses that have proven to be dead ends, or towards lines of research that are demonstrating promising results. If funding systems are inflexible, the risk is that dead ends are pursued too long and that resources are not available to accelerate work when breakthroughs are occurring.

Full funding flexibility for research managers is achieved through unrestricted funds, but these offer a low level of accountability to the investor. Restricted project funding with very detailed activities and results offers minimum flexibility. The intent of core funding through Windows 1-2 of the CGIAR Fund is that it offers a reasonable level of flexibility to research managers while providing a better accountability to investors than is achieved through completely unrestricted funds. This can be achieved when the outcomes of the research are well described, and the program is held accountable for achieving those outcomes, but the manner in which the outcomes are achieved are left largely to the research managers.

An example can be that an outcome is to develop crop varieties with specified high levels of micro-nutrients, but the pathway through which this is achieved is left to the research manager. The research proposal may initially describe a number of alternative hypotheses through which the target micro-nutrient levels can be achieved, but the research manager needs the flexibility to re-assign resources to those hypotheses that are shown to have promising results after several years of work.

One option, with a 3-year cycle, is that such re-allocation of resources occurs every three years, when proposals for a new cycle are developed, reviewed and approved.

Alternatively, if a more dynamic adaptive management system is required, (some degree of) funding re-allocation may occur on an annual basis, based on annual monitoring and progress reports.

A hybrid alternative is that at the program level resource allocation is set every three years, but that within a program resources are (re-)allocated to flagship projects through annual allocation.

4.3 Performance based resource allocation

Presuming there will be three-year work plan CRP contracts (alternatively 4 or 5 years), starting with 2017-19 for phase 2 of the CRPs, the heart of each CRP performance contract will be the 3-year progress indicators agreed in the approved proposal to demonstrate progress towards the 9-12 year CRP IDOs for each flagship project. These progress indicators, and their associated monetary value, will be captured in a Performance Indicator Matrix that is part and parcel of each performance contract.

CRP budgets will be both in terms of:

- Accounting units (staff, travel, etc.) as budgets traditionally are in the CGIAR, largely to ensure budgets are sound and overheads have been calculated correctly; and
- Outcomes or results, i.e. 3-year Progress Indicators for each flagship project – enabling a value for money analysis (cost per unit of output / outcome achieved), at least for quantitative progress indicators, recognizing that not all indicators will be measurable in quantitative terms.

CRPs will need to develop experience to ensure that outcome/output based budgets are reliable (within an acceptable bandwidth) and can be monitored. This will require a system of time recording for staff time that supports reliable allocation of staff time to outcomes that can be monitored and verified.

As the Performance Indicator Matrix (PIM) will specify the outcomes at each reporting milestone, together with the associated monetary value, the heart of results based management will be that the Consortium office monitors, through the progress reporting of the CRPs, whether the agreed outcomes have been produced before signing off on the associated payment (this replaces the current system where the substantive and financial reporting are decoupled).

The primary resource allocation in the new CGIAR is made by the Fund Council when it approves three-year budgets for CRPs (e.g. the three year resource mobilization scenario and CRP budget approvals for 2017-19 for the second phase of the CRPs). It is expected that the review and approval of the (synchronized) CRP portfolio as a whole will offer greater opportunity to allocate variable amounts of resources across the CRPs, based on the CRP achievements to date, the quality of the CRP proposal and the recommendations of the Consortium and the advice of the ISPC to the FC.

Given that both the annual resources made available for investment by the donors, as well as the performance of the CRPs, are uncertain, secondary resource allocation to approved CRPs within their approved budgets occurs through the CGIAR Financing Plan approved by the Consortium. The Financing Plan can allocate lower levels of resources, if not all approved resources are available (as was the case during the first phase), but it could also slow down funding to CRPs that are not developing or performing as expected (in the agreed Performance Indicator Matrix).

4.4 Monitoring, reporting, evaluation and impact assessment

Each CRP will need to establish a credible system to monitor its own progress towards achieving IDOs used to report progress and maintain a database of monitoring data that can be independently verified. The cost of the monitoring system will be part of each CRP's proposal. The CO (assisted by the Internal Audit Unit as necessary) will review and assess the CRP monitoring system through review of CRP reports and through field visits / internal audits.

The PIM is the core accountability framework for each CRP. The CRP will report on its progress through:

- Annual Program of Work and Budget for the coming year, to be submitted on November 1 and approved by the CO before the end of December (linked to a W1-2 budget allocation).
- Six-monthly (mid-year) progress report (narrative, indicators and financial) – to be approved by CO as condition for disbursement.
- Annual report (narrative, indicators and financial) – to be approved by CO as condition for disbursement.

The POWB and mid-year progress report are internal to the Consortium (but will be publicly available on the website). The annual reports are submitted by the Consortium to the FC.

In addition to the CRP level reports, the Consortium will prepare an annual CRP Portfolio level report in which it will report on all aggregated (progress towards) common IDOs and System Level IDOs, provide a CGIAR system level score card, and an analysis of overall value for money of the funds invested in the CGIAR.

The Consortium and CRPs internal monitoring, analysis and auditing capacity needs to be synchronized with CGIAR's external evaluation capacity - to be developed through the Independent Evaluation Arrangement (IEA). The Internal Audit Unit (IAU) will independently verify the quality and accuracy of the monitoring data through external reviews and audits of the data reported on by the CRPs.

Each CRP will also be responsible to develop and maintain the evidence base to support the causal link between its IDOs and impact in terms of the SLOs, as relevant for each CRP – as argued in its proposal. This evidence can be derived from external sources (i.e. the literature, or research or impact assessments carried out by others) or can be planned and implemented by the CRP as part of its own work (or commissioned by the CRP through SPIA or to third parties). Impact Assessment work required to develop or maintain the evidence base for the CRP will be part of, and budgeted in, each CRPs proposal.

4.5 Results Based Management Pilots

Early in 2013 all CRPs were asked whether they wanted to volunteer for Results Based Management Pilots. Seven CRPs volunteered and were asked to come up with ideas that the

CRPs though would help them to prepare for the introduction of results based management. Based on these ideas the seven CRPs were asked to develop short proposals. Following evaluation five of these were retained for an earmarked W1 allocation in 2014, totalling $4M (CCAFS $1.5m, RTB $0.7m, AAS, GRiSP, Humidtropics $0.6m).

The pilots range from proposals to implement results based management for one of the CRP flagship projects and link payments to outcomes achieved (for CCAFS) to proposals to develop the monitoring system at outcome level necessary to implement RBM (GRiSP).

The intent is to continue with RBM pilot project in 2015 and 2016, in order to gain some experience with results based management before the start of the second phase.

5. CROSS CUTTING ISSUES

Key Messages
• The Cross-cutting issues are gender research, capacity strengthening and foresight. • Gender research and in the workplace are already being mainstreamed in CRPs. • Capacity Development (CD) will also be integrated in CRPs planning and implementation within the framework of IDOs' ToC and Impact Pathways. The Community of Practice has been reactivated in 2013 and in the first semester of 2014 the CoP will work with CRPs and Centers developing a CGIAR CD Strategy. • Partnerships are central to the SRF and success of CRPs. The GlobeScan survey identified CGIAR perceived weakness in accessibility, collaboration and transparency that are being addressed in the Partnership Action Plan. • Foresight will also be integrated in CRPs planning and implementation within the framework of IDOs' ToC and Impact Pathways.

A number of important issues have been declared cross-cutting issues for the CRP portfolio, meaning that the expectation is that all CRPs address and "mainstream" or integrate these issues to the extent this is practical and appropriate in their workplans and budgets.

5.1 Gender

The CGIAR Consortium has increased the importance of gender in the research portfolio by implementing the Consortium Level Gender Strategy (approved in 2011) which has two branches: gender in research and gender and diversity in the workplace. These are Consortium longer-term actions to strengthen the institutional framework for mainstreaming gender research and increase CRPs' accountability for gender mainstreaming. Although gender is not specifically included in the wording of the system-level results, there is agreement that a specific gender portfolio-level IDOs are an important step towards accountability for gender-responsive results. Incentives are designed to ensure that all CRPs comply with the Consortium Level Gender Strategy as well as high standards for gender integration of funders and other stakeholders.

Actions for strengthening gender in research were formulated in the Consortium's three year "Gender Action Plan" approved by the Consortium Board in September 2013 and subsequently by the Fund Council include:

- **Gender Research Postdoctoral Fellowships and Partnership scheme** designed to accelerate the building of a critical mass of gender research expertise in the CRPs while teaming up external gender expertise from Universities with CRP gender researchers and postdoctoral fellows to upgrade, mentor and sustain research quality
- **Capacity development through cross-program learning and collaborative research** designed to support the Gender network to more rapidly implement the

collaborative work it has planned and enable CRPs with different (uneven) levels and types of gender expertise to improve capacity through cross-learning and good practice exchanges

All these activities will benefit from the Gender Action Plan which provides the opportunity to build more cumulative work.

All CRPs have gender strategies now integrated into annual Plans of Work and Budget and have accelerated the recruitment of gender specialists. CRPs' 2013 POWBs included a specific budget for gender research which amounted to $55m or 5 percent of the total portfolio budget, a significant increase over the total earmarked for gender in the CRP proposals in 2011. The approval of annual CRPs' POWB and CRP Annual Reports, upon which disbursement of funds (Windows 1 &2) are contingent is a powerful incentive to motivate CRP compliance with gender integration. Since December 2013 the Consortium is taking action on the second branch of the Consortium Level Gender Strategy that addresses gender and diversity in the workplace.

5.2 Capacity Development

CGIAR will undertake capacity development work based on the principle that CRP Intermediate Development Outcomes (IDOs) along with Theories of Change (ToC) and Impact Pathways (IP) are the framing context for putting together a CGIAR capacity development strategy.

Across CGIAR Centers and CRPs there is already a wealth of capacity development packages that include Services and Products, Capacity Development Approaches, Training Methodologies and Tools. Similar to the process followed for other cross-cutting issues such as gender, there are many benefits from coordinated collective action across the CGIAR in this area. A recently formed community of practice (CoP) will endeavour to support the framework of the CGIAR reform process though mutual learning, co-creation, sharing of best practices and advocacy for capacity development across the CGIAR system to achieve development outcomes. This wealth of experience will be combined with new approaches to capacity development and new research products that are fit for the new CRPs' purposes. The premise is that targeted capacity development options will be developed to respond to CRP needs, in line with the new CRP research design and implementation phases and adjusted as needs shift along the impact pathway journey.

Training has long been a central element of capacity development approaches in CGIAR, and for many partners and donors, one of the great achievements of the system over the past several decades. Capacity development in CGIAR will go beyond training (as a stand-alone activity). Capacity development occurs at many levels (i.e., individual, organizational and institutional) and involves other activities and processes in addition to knowledge and skills transfer. For the CRPs, making science relevant to foster the leap from individual learning to livelihood outcomes and impacts requires both good design to enable capabilities and an

appropriate training plan tailored to cultural, organizational and institutional contexts in which to apply the new agricultural knowledge. Capacity development can be effective as a vehicle for development only if it is embedded within broader strategies (i.e., CRPs' Theories of Change and Impact Pathways) that provide unambiguous context and strategic frameworks for its implementation. Likewise, without strong capacities at all levels, it would be difficult for CRPs to transition from the traditional "research outputs" orientation to a more holistic "development outcomes" paradigm, which makes capacity development an essential enabler of many of the reform objectives.

5.2.1 A Systems Approach to Capacity Development

The CGIAR will undertake a systems approach to capacity that accounts for contextual factors, such as individual constraints, organizational shortcomings, institutional interfaces and regulatory and cultural barriers, which may make efforts to build capacities ineffective. A holistic and systematic approach is required for designing, implementing and measuring capacity development response strategies (based on assessment methodologies and adaptive management) across three distinctive system levels namely: **the enabling environment** (the broader system including downstream/upstream policies, rules and legislation, regulations, power relations and social norms); **the organizational level** (the internal policies, arrangements, procedures and frameworks that allow an organization to operate and deliver on its mandate, enabling the coming together of individual capacities for achieving common goals); **and the individual level** (the skills, experience, knowledge and motivation of people).

Under a systems perspective, transformation of research outputs into development outcomes and associated capacity development cannot be solely defined on the basis of *a priori* demand-driven goals or driven by very short term considerations. There is evidence that transformational innovations are often not demand-driven and scientists and innovators have envisioned transformational ideas, technical and commercial opportunities without apparent demand being there in advance. The Green Revolution, for instance, was mainly driven by the vision of a few donors, scientists and policymakers. A balance is extremely important for CGIAR and agricultural research in general where there has to be both a decided response to observable demand but also space preserved to emerging opportunities, imagination and innovative projects with potential transformational value. The same logic applies to needs and opportunities for capacity development.

5.2.2 Elaborate a common M&E and impact framework

CGIAR will track, disseminate and report how capacity development in CRP planning, management and delivery is incorporated, monitored, evaluated and budgeted for. This will allow CGIAR to set specific targets and continuously measure and improve the quality of capacity development within its CRP programs by methodically testing and integrating appropriate approaches, in the design as well as implementation of projects and proposals.

This will support CRPs to effectively plan, adaptively manage and monitor their progress building capacities along their impact pathways.

5.3 Partnerships

One aspect of the reform of CGIAR is that investors and outside partners are expecting it to help open up the CGIAR system, perceived by many on the outside as closed and insulated, and contribute to more effective partnerships. While it is clear that many on the inside of the CGIAR system do not share the perception that CGIAR is closed, and in fact pride themselves on their excellent partnering skills, when our relationships with external partners is concerned their perception is our reality. Or in other words, what counts is not what we think of ourselves but what our partners think of us (a variation on "the customer is king" – a reality for all service providers). As our partners are getting impatient to see this aspect of the reform deliver results, and as the various elements of the reform to date are relatively silent on what constitutes good partnership, it is proposed here that the SRF Action plan puts in place CGIAR's goals and targets on the partnership front.

Part of this will no doubt relate to sharing resources, measured as the share of partners of CRP budgets. We know that current partner allocations of the Window 1+2 share of CRP budgets are on the order of 5%, while the partner share of overall budgets (including W3 and bilateral) appears to be more on the order of 30%. We should discuss what appropriate expectations of our partners are and how we can deliver against these. CGIAR and its partners should not only agree on fair sharing of resources, but also on sharing of responsibility and accountability for results. Funding is not the only measure of a partnership – a role in the development of proposals and ideas is another, and a role in the management of the implementation of the program is another.

The Consortium commissioned GlobeScan to complete a Perception survey (updating the survey conducted in 2006) and has a baseline against which we can assess performance going forward. Based on the results and after consulting with CRPs and Centers the CO has developed a partnerships action plan to address the systems reported weakness on accessibility, collaboration and transparency. The CGIAR Action Plan on partnerships has the following 8 points:

1. **2015-2017 Partnership Strategy:** Develop a comprehensive CGIAR Strategy on Partnerships for a three years period grounded on the recent reform, the CGIAR SRF and feedback gathered from stakeholders. This strategy should be ready in 2014. Potential components of this strategy will be discussed trough a dedicated online platform were suggestions and comments to the drafted version will be gathered and carefully considered by the Consortium Office.

2. **CGIAR Partnership Committee:** With this regard the CGIAR Consortium will create a Partnership Committee including members with extensive stakeholders' representation such as GFAR, YPARD, AWARD, CRPS and Consortium Office. This Committee will be in

charge of all matters related to the definition and implementation of the partnership strategy for the coming two years.

3. **CGIAR Research Programs Guidelines on partnership:** As the CGIAR Research Programs will start their second phase of implementation in 2017, the Consortium Office will define a set of concrete guidelines on partnerships in order to be used by them. These guidelines will be defined in agreement with the Partnership Committee and will be an integral part of the CGIAR Partnership Strategy beyond 2017.

4. **Links with the CGIAR Governance Review:** The current CGIAR Governance review is analyzing the 3 weakest CGIAR partnerships areas (accessibility, collaboration and transparency) in order to define concrete actions that should be taken with regards to Governance.

5. **CGIAR targets for partnership in 2015:** Apart from the baseline arising from the 2012 stakeholders Survey, a comprehensive *set of indicators and targets for 2015* regarding different partnerships dimensions will be defined in agreement with the Partnership Committee. These targets will be closely followed by the Consortium Office and will play a critical role in the CGIAR performance management system that is being created.

6. **Capacity Building focus:** The results of the 2012 stakeholder's survey that has been completed for the CGIAR and for all of the CRPs will inform specifically targeted strategies for Capacity Building improvement.

7. **Stakeholders online platform:** This platform will be an open and comprehensive forum for exchanging opinions with the Consortium Office as well as giving feedback for ongoing or possible initiatives related to partnership all across the Consortium.

8. **2015 CGIAR Stakeholders Perception Survey:** The effectiveness of this Action Plan as well as the overall evolution of CGIAR performance in partnerships will be assessed again in a CGIAR Stakeholders Survey to be developed in 2015. Finally, follow up of this Action Plan could be done through our webpage (www.cgiar.org) where a special section has been created to inform the progress in implementing its 8 points.

There are important partnerships already underway and the CO has signed nine MoUs in 2013 for collaborative work; worth mentioning is the increased engagement with the CAADP-CGIAR alignment process, the CIRAD fellows program and the FAO-CGIAR strategic alignment on gender and metrics.

5.4 Foresight

Chapter 1 of the SRF provides the framework for CGIAR strategy based on assumptions that were valid in 2010. When the SRF was adopted by the CGIAR Funders Forum in 2011 it was decided that, in not later than six years (i.e. before February 2017), a new SRF would have to

be developed and that the CRP portfolio must be seen as part of a "living agenda" which evolves as new problems and opportunities are identified. In consequence, a certain number of contextual topics and assumptions will need to be reconsidered because the situations will have evolved and the future often turns out different than it had been envisaged. In that sense, the SRF already pointed out to a few topics to be considered: the emergence of new challenges (p. 4) and the potential interactions between identified problems; the futures of global and regional governance (p. 22); the future roles of agriculture in the economic and social development of the countries (p. 18); the future shapes of the Global Research System and the role of the CGIAR in this system (p. 11). At GCARD 2012, the CGIAR also committed to bringing a dynamic foresight element in the SRF and CRP, focusing on three key trends identified as priorities at GCARD2: farm size dynamics; from sustainable production to sustainable consumption; and urbanization. Since then, ISPC has commissioned a foresight study on "Farm Size and Urbanization".

Now that all CRPs are preparing for the 2nd call for proposals the inclusion of foresight in their planning for implementation in 2017-2020 is possible whereas in the first phase of the reform, the SRF and the CRPs were prepared independently, some of them years earlier than others, and all were planned for at least ten years with funding ceilings approved only for the first three years for most CRPs. In the 2017 -2020 CRPs' renewal cycle a foresight process will be designed to create greater coherence for the future SRF (2016-2021) and to ensure that the SRF provides a coherent and comprehensive framework that includes foresight. The CO will work with the CRP directors, the foresight scientists in PIM and other CRPs, as well as with the ISPC foresight group and the GFAR forward thinking platform to design a process for improving the foresight dimension of the SRF, linking it to relevant foresight approaches within and outside of CGIAR; facilitate the development of a stronger foresight culture within the CRPs (e.g., through a community of practice, capacity building); work with the CRPs, ISPC, GFAR and other relevant groups outside of CGIAR to identify specific areas of cross-cutting interest for focused foresight studies, and co-design a process for implementation. The calendars of the second call and foresight processes will be synchronized to facilitate building this coherence.

5.4.1 Foresight is critical to CGIAR's success

In a rapidly changing and increasingly complex world with scarce resources, strategic decision making is key to tackling challenges and reaching sustainable development goals. Disruptive events, such as a financial crisis, human or animal epidemics, technological breakthroughs or geopolitical interference with energy or resource security, can rapidly change the assumptions upon which SLOs, IDOs and research questions have been constructed. Foresight helps detecting and assessing such elements so possible responses can be explored and readiness increased.

In CGIAR, foresight activities will build a discipline of anticipation leading to a systematic and transparent connection of the anticipation of uncertain future developments in topics such as society, economy, climate, energy, structures of production, research and innovation

systems, science and technology to strategy development and implementation. It will be a systematic and open process conducted on a regular basis ("rolling process") geared towards feeding systematically into CGIAR as a whole, and CRPs strategy development processes.

Foresight activities will also take on board the fact that anticipation is rooted in the observation of real changes, that plurality matters, and that the problems result from networks of multiple interacting causes that are difficult or even cannot be individually distinguished.

Foresight activities will be a collective and participatory process. The process of forward thinking together, looking at on-going changes, anticipating possible disruptive changes, identifying controversies and uncertainties is as important, if not more, than the results.

The process of building a foresight culture implies a visible commitment from top management, being led from within, making sure that core resources are devoted to the process and that there is commitment to the results of the exercise.

5.4.2 Three types of activities

A four step process for a full-fledged foresight exercise: A full foresight exercise should have four elements, and go from Strategic Intelligence to Sense Making, to Selecting priorities and Implementation. Strategic intelligence and sense making will be permanent activities.

The outputs of the Strategic Intelligence phase will be networks, databases, studies, and meetings.

The sense-making phase means analyzing what comes out of the strategic intelligence process, transforming it into material that is appropriate for anticipation work, and internalizing the information. It implies making an effort to understand relations between people, places, events, etc. in order to be able to change behavior and to get mobilized collectively. Outputs are variable index cards describing the variables and proposing hypothesis for the future, questioning of common assumptions and identification of topics of controversies.

For these two phases, qualitative and quantitative methods, complementing each other will be used. This process will be applied to the futures of aquatic agricultural systems in Sub-Saharan Africa.

Watch and information sharing: Every month, a foresight letter will be sent to all CRP leaders and interested individuals and partners to inform them about trends, unexpected events and recent foresight exercises. Researchers from CRPs will be invited to contribute.

Index cards detailing trends (past and on-going), and uncertainties and proposing hypothesis for the future will be prepared with CRPs on factors influencing the futures of the CGIAR system.

Networking and training: Meetings of researchers involved or interested by foresight in CRPs and members of the Forward Thinking Platform (FTP) will be organized to discuss results of foresight exercises and exchange on methods.

5.4.3 Results expected in five years

It is expected that in five years, the CGIAR system will have a foresight culture that will make it more agile, rooted in reality, and able to grasp opportunities. Indicators of success will be the establishment of a foresight community of practice, the foresight letters, the meetings involving foresight specialists, the number of foresight exercises carried out or on-going, and the evolving or new research priorities.

6. CONSULTATION

CGIAR is and will continue consulting with multiple stakeholders (from investors / donors, regional agricultural research organizations, national governments, etc.) to characterize the "demand" for CGIAR research. Table 4 shows the consultation windows for the 2014 SRF Management Update. Results and progress made by the Consortium working groups will be presented and discussed in depth in multiple venues to obtain feedback in three basic areas: (i) process for selection of indicators mapped to SDGs; (ii) process for selection of geographic domains of measurement; and (iii) specification of how the metrics will be used.

7. TIMELINE

The progressive fine-tuning of the SRF (i.e., Management Updates) enables the implementation of change management process that increases CGIAR's ability to achieve impact. This 2014 Management Update establishes an accountability framework based on results and performance. Table 4 shows the timeline and milestones for the SRF Management Update Process.

Once approved by the CB and FC, the 2014 SRF management update will become an Annex and integral part of the CGIAR SRF.

It is expected to have another SRF Management Update (2015-16) before the next cycle of CRPs starts in 2017.

Table 4. Timeline for SRF Management Update (SRF MU) with Internal & Public Consultation	
2013	
Dec – 20	2014 SRF Management Update (Version 1) opens for comment & feedback by Centers and CRPs, posted publicly on website and disseminated by GFAR.
2014	
Jan 31 – Feb 8	Workshop with CB, ISPC, FC to review and discuss 2014 SRF Management Update
March 7	CO Consolidates internal/external feedback to produce 2014 SRF Management Update(Version 2)
Mar 7	2014 SRF Management Update submitted to CB for review
Mar 19-20	2014 SRF Management Update Approved by CB
Mar 24 -	2014 SRF Management Update submitted to FC for approval
April 16 -	2014 SRF Management Update Approved by FC
October -	CB Meeting – Progress Report on SRF Implementation and discussion of 2015 SRF Management Update
November -	FC Meeting – Progress Report on SRF Implementation and discussion of 2015 SRF Management Update
November -	2015 SRF Management Update open for comment & feedback by Centers and CRPs, posted publicly on website and disseminated by GFAR.
2015	
Feb -	Workshop with CB, ISPC, FC to review and discuss 2015 SRF Management Update
March -	CO Consolidates internal/external feedback to produce 2014 SRF Management Update(Version 2)
Mar -	2015 SRF Management Update submitted to CB for review
Mar -	2015 SRF Management Update Approved by CB
Mar -	2015 SRF Management Update submitted to FC for approval
April -	2015 SRF Management Update Approved by FC
October -	CB Meeting – Progress Report on SRF Implementation and discussion of 2016 SRF Management Update
November -	FC Meeting – Progress Report on SRF Implementation and discussion of 2016 SRF Management Update

Annexes:

SLO and IDO Working Group Reports

PIM Mapping Exercise

Foresight Resources

Etc…